

REMARKS

This is a full and timely response to the outstanding non-final Office Action mailed August 19, 2008. Through this response, claims 1-3 and 5-47 are pending in the application. Claims 23, 41-42, and 46 have been amended to correct typographical errors. Reconsideration and allowance of the application and pending claims are respectfully requested.

I. Claim Rejections - 35 U.S.C. § 103(a)

A. Rejection of Claims 1-3 and 5-47

Claims 1-3 and 5-47 have been rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over *Pierre et al.* (U.S. Pat. No. 6,678,463, hereafter "*Pierre*") in view of *Ellis et al.* (U.S. Pub. No. 2002/0174430, hereafter "*Ellis*"). Applicants respectfully traverse this rejection.

B. Discussion of the Rejection

The M.P.E.P. § 2100-116 states:

Office policy is to follow *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), in the consideration and determination of obviousness under 35 U.S.C. 103. . . the four factual inquiries enunciated therein as a background for determining obviousness are as follows:

- (A) Determining the scope and contents of the prior art;
- (B) Ascertaining the differences between the prior art and the claims in issue;
- (C) Resolving the level of ordinary skill in the pertinent art; and
- (D) Evaluating evidence of secondary considerations.

In the present case, it is respectfully submitted that a *prima facie* case for obviousness is not established using the art of record.

Independent Claim 1

Claim 1 recites (emphasis added):

1. A system for managing the allocation and storage of media content instance files in a hard disk of a storage device coupled to a media client device in a subscriber television system, comprising:
 - a memory for storing logic;
 - a buffer space in the hard disk for buffering media content instances as buffered media content instance files; and
 - a processor configured with the logic to track the size of permanent media content instance files and the buffered media content instance files to provide a visual indication of an amount of available free space, such that the indication is independent of the buffer space.***

Applicants respectfully submit that *Pierre* in view of *Ellis* fails to disclose, teach, or suggest at least the above emphasized claim features.

The Office Action alleges on page 3 that:

Pierre discloses ... *a processor (see at least FIGs. 2-3, item 30) configured with the logic to track the size of permanent media content instance files and the buffered media content instance files to provide indication of available free space (see at least FIG. 7, steps 106, 120, 140; 6:7-7:64).*

Pierre does not specifically disclose that the indication of available space is *a visual indication of an amount of available free space, such that the indication is independent of the buffer space.*

However, in an analogous art, *Ellis*'4430 incorporates the disclosure of a visual indication of an amount of available free space (see FIGs. 19-20 in the provisional application no. 60/290,709 filed May 14, 2001, from which *Ellis*'4430 claims priority). It is noted that the "Recording Space Available: 14 hrs" in FIGs. 19 and 20 does not appear to be dependent upon buffer space.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide *Pierre* with *Ellis*'4430's feature because the use of *Ellis*'4430 feature would help a user of *Pierre* determine whether the PVR has enough memory to store the desired program.

(Emphasis in original). Applicants respectfully disagree.

While *Pierre* teaches that "The CPU in the control processor 30 configures a DMA controller to ensure that the data is written to a buffer that is allocated in the storage device 18" (col. 6, lines 7-9), *Pierre* does not disclose or suggest "track[ing] the size of permanent media content instance files and the buffered media content instance files". Rather, *Pierre* teaches

that “processor 30 first determines if there is sufficient contiguous space on the storage device 18 for the entire program, including the part currently stored in the buffer (step 106)” (col. 8, lines 7-10). Applicants respectfully submit that determining is not tracking. Nor is “determin[ing] if there is sufficient contiguous space on the storage device” the same as “track[ing] the size of permanent media content instance files and the buffered media content instance files”. Thus, *Pierre* does not disclose or suggest “a processor configured with the logic to track the size of permanent media content instance files and the buffered media content instance files” as recited in claim 1.

Nor does *Pierre* teach or suggest “a processor configured with the logic ... to provide [an] indication of an amount of available free space” as alleged. While *Pierre* teaches that “a message is displayed to the viewer indicating that there is insufficient space to record the program currently being broadcast and the viewer is requested to choose between deleting an existing recording or not recording the current program (steps 140 and 144)” (col. 8, lines 60-65), *Pierre* does not disclose or suggest “indication of an amount of available free space” as recited in claim 1. Applicants respectfully submit that indicating that there is insufficient space is not the same as “provid[ing an] indication of an amount of available free space”. Moreover, as acknowledged on page 3 of the Office Action, “*Pierre* does not specifically disclose that the indication of available space is *a visual indication of an amount of available free space, such that the indication is independent of the buffer space*” (emphasis in original).

The addition of *Ellis* does not overcome these deficiencies. *Ellis* does not even mention tracking, much less disclose or suggest “track[ing] the size of permanent media content instance files and the buffered media content instance files”. In addition, even though the Program Recording Setup Screens of FIGS. 19 and 20 on page 64 of the provisional application no. 60/290,709 (to which *Ellis* claims priority) illustrate “Recording Space Available: 14 hrs” as being displayed, neither the provisional application nor *Ellis* teach or suggest that the Recording Space Available “indication is independent of the buffer space” as recited in claim 1.

If the Office Action is alleging that this explicit limitation is inherent in the "Recording Space Available", Applicants respectfully submit that extrinsic evidence must be produced which establishes that the limitation would necessarily present in view of the *Pierre* and *Ellis* disclosures. "To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.'" *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) (citations omitted). Consequently, because of the lack of extrinsic evidence required under *In re Robertson*, the statements in the Office Action are merely conclusory and not adequately supported, and the rejection of claim 1 is improper.

For at least these reasons, Applicants respectfully submit that claim 1 is allowable over *Pierre* in view of *Ellis*. Therefore, Applicants respectfully request that the rejection of claim 1 be withdrawn.

Because independent claim 1 is allowable over *Pierre* in view of *Ellis*, dependent claims 2-3, 5-22, and 47 are allowable as a matter of law for at least the reason that the dependent claims 2-3, 5-22, and 47 contain all elements of their respective base claim. See, e.g., *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988).

Dependent Claim 18

Notwithstanding, and in addition to, the arguments discussed above, Applicants respectfully request that the rejection of claim 18 be withdrawn for at least the reason that *Pierre* in view of *Ellis* fails to disclose, teach, or suggest at least the features recited and emphasized below in claim 18. Applicants' claim 18 provides as follows (emphasis added):

18. The system of claim 1, wherein ***the processor is further configured with the logic to determine the available free space after subtracting buffer space capacity from total disk space.***

The Office Action alleges on pages 6-7 that:

The combination Pierre-Ellis'4430 does not specifically disclose *wherein the processor is further configured with the logic to determine the available free space after subtracting buffer space capacity from total disk space*. However, this logic is deemed inherent to Pierre because Pierre does disclose the step of determining whether there is sufficient contiguous space in storage device for the entire program (FIG. 7, step 106) and for remainder of the program (FIG. 7, step 120). Without subtracting buffer space capacity from total disk space, the above determining step would not be possible.

(Emphasis in original). Applicants respectfully disagree. Applicants respectfully submit that determining sufficient contiguous space does not require "subtracting buffer space capacity from total disk space" as recited in claim 18. "To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.'" *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) (citations omitted). Because no extrinsic evidence has been provided, the statements in the Office Action are not adequately supported, and the rejection of claim 18 is improper.

For at least the reasons described above, *Pierre* in view of *Ellis* fails to disclose, teach or suggest all of the features recited in claim 18. Therefore, Applicants respectfully request that the rejection of claim 18 be withdrawn.

Dependent Claim 19

Notwithstanding, and in addition to, the arguments discussed above, Applicants respectfully request that the rejection of claim 19 be withdrawn for at least the reason that *Pierre* in view of *Ellis* fails to disclose, teach, or suggest at least the features recited and emphasized below in claim 19. Applicants' claim 19 provides as follows (emphasis added):

19. The system of claim 1, wherein ***the processor is configured with the logic to reduce the available free space by the amount of the space used for the permanent media content instance files.***

The Office Action alleges on page 7 that:

The combination Pierre-Ellis'4430 does not specifically disclose *wherein the processor is configured with the logic to reduce the available free space by the amount of the space used for the permanent media content instance files*. However, the reducing the available free space is deemed not only inherent but an unpatentable feature since this step is a direct result of the step of saving a permanent media content instance file. If the size of the new permanent media content instance file is larger than the existing one, then the result will be the reduction of the available free space.

(Emphasis in original). Applicants respectfully disagree. Applicants respectfully submit that reducing the available free space is not a direct result of the step of saving a permanent media content instance file as alleged. "To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.'" *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) (citations omitted). Because no extrinsic evidence has been provided, the statements in the Office Action are not adequately supported, and the rejection of claim 19 is improper.

Applicant acknowledges that the Examiner alleges that claim 19 includes "an unpatentable feature" (Office Action at page 7). However, no formal objection or rejection has been presented. Further, Applicants respectfully submit that the feature of claim 19 is patentable.

For at least the reasons described above, *Pierre* in view of *Ellis* fails to disclose, teach or suggest all of the features recited in claim 19. Therefore, Applicants respectfully request that the rejection of claim 19 be withdrawn.

Dependent Claim 22

Notwithstanding, and in addition to, the arguments discussed above, Applicants respectfully request that the rejection of claim 22 be withdrawn for at least the reason that *Pierre* in view of *Ellis* fails to disclose, teach, or suggest at least the features recited and emphasized below in claim 22. Applicants' claim 22 provides as follows (emphasis added):

22. The system of claim 1, wherein ***the free space indication is unaffected by writes to and deletions from the buffer space.***

The Office Action alleges on page 7 that:

The combination *Pierre-Ellis*'4430 further discloses *wherein the free space indication is unaffected by writes to and deletions from the buffer space* (*Pierre*; see at least 6:4-7-39).

(Emphasis in original). Applicants respectfully disagree. While *Pierre* teaches that "a message is displayed to the viewer indicating that there is insufficient space to record the program currently being broadcast and the viewer is requested to choose between deleting an existing recording or not recording the current program (steps 140 and 144)" (col. 8, lines 60-65), *Pierre* does not disclose or suggest a "free space indication", much less that "the free space indication is unaffected by writes to and deletions from the buffer space" as recited in claim 22.

The addition of *Ellis* does not overcome these deficiencies. Even though the Program Recording Setup Screens of FIGS. 19 and 20 on page 64 of the provisional application no. 60/290,709 (to which *Ellis* claims priority) illustrate "Recording Space Available: 14 hrs" as being displayed, neither the provisional application nor *Ellis* teach or suggest that the Recording Space Available "indication is unaffected by writes to and deletions from the buffer space." Thus, *Pierre* in view of *Ellis* does not disclose or suggest "the free space indication is unaffected by writes to and deletions from the buffer space" as recited in claim 22.

For at least the reasons described above, *Pierre* in view of *Ellis* fails to disclose, teach or suggest all of the features recited in claim 22. Therefore, Applicants respectfully request that the rejection of claim 22 be withdrawn.

Independent Claim 23

Claim 23 recites (emphasis added):

23. A system for managing the allocation and storage of media content instance files in a hard disk of a storage device coupled to a media client device in a subscriber television system, comprising:
a memory for storing logic;
a buffer space in the hard disk for continuously buffering media content instances as buffered media content instance files; and
a processor configured with the logic to track the size of permanent media content instance files and the buffered media content instance files, wherein the processor is further configured with the logic to provide a user interface, responsive to a user input, wherein the user interface provides the indication of available free space for permanently recording media content instances, wherein the permanently recorded media content instances are configured as the permanently recorded media content instance files, wherein the permanently recorded media content instance files can be deleted from the storage device, wherein the user input is implemented with a remote control device, wherein the permanently recorded media content is from the buffer space, wherein the permanently recorded media content is a scheduled recording initially written to non-buffer space, wherein the buffer space, the available free space, and permanently recorded space are located on the hard disk, wherein the buffer space and permanently recorded space are allocated from the free space on the hard disk, wherein the buffer space and permanently recorded space have physical locations on the hard disk, wherein the buffer space and the available free space is measured in units of hard disk space, wherein the processor is further configured with the logic to buffer analog broadcast media content instances, received at a communications interface, as digitally compressed media content instances, wherein the processor is further configured with the logic to buffer an analog signal received at a connector from a consumer electronics device, as a digitally compressed media content instance, wherein the processor is further configured with the logic to buffer digital broadcast media content instances, received at a communications interface, as digitally compressed media content instances, wherein the processor is further configured with the logic to buffer digital media-on-demand media content instances, received at a communications interface from a remote server, as digitally compressed media content instances, wherein the processor is further configured with the logic to buffer digital media content instances, received at a digital communications port from a local network, as digitally compressed media content instances, wherein the processor is further configured with the logic to buffer digital media content instances, received at a digital communications port from a local device, as digitally compressed media content instances, wherein **the processor is further configured with the logic to determine the available free space after subtracting buffer space capacity from total disk space**, wherein **the processor is**

configured with the logic to reduce the available free space by the amount of the space used for the permanent media content instance files, wherein the processor is configured with the logic to increase the available free space by the amount of the space recovered from a deleted permanent media content instance files, wherein the indication of the free space available is configured in time of space available for the permanent media content instance files, wherein the processor is further configured with the logic to provide the user interface that provides a numerical indication of an amount of available free space, such that the indication is unaffected by writes to and deletions from the buffer space.

Applicants respectfully submit that *Pierre* in view of *Ellis* fails to disclose, teach, or suggest at least the above emphasized claim features.

The Office Action alleges on page 8 that "Since Claim 23 is an independent claim that is a combination of Claims 1-22, the respective rejections are thus applied." Applicants respectfully disagree. Specifically, claims 1-22 do not include the features of "a buffer space in the hard disk for continuously buffering media content instances as buffered media content instance files" and "the user input is implemented with a remote control device" as recited in claim 23. Section 2143 of the MPEP states that:

To reject a claim based on this rationale, Office personnel must resolve the *Graham* factual inquiries. Then, Office personnel must articulate the following:

(1) a finding that the prior art included each element claimed, although not necessarily in a single prior art reference, with the only difference between the claimed invention and the prior art being the lack of actual combination of the elements in a single prior art reference;

(2) a finding that one of ordinary skill in the art could have combined the elements as claimed by known methods, and that in combination, each element merely performs the same function as it does separately;

(3) a finding that one of ordinary skill in the art would have recognized that the results of the combination were predictable; and

(4) whatever additional findings based on the *Graham* factual inquiries may be necessary, in view of the facts of the case under consideration, to explain a conclusion of obviousness.

Thus, for at least the reason that the Office Action fails to articulate a finding that the cited references include each element claimed, the rejection of claim 23 is legally insufficient and should be withdrawn.

In addition, the Office Action alleges on pages 3 and 7, respectively, that:

Pierre discloses ... *a processor (see at least FIGs. 2-3, item 30) configured with the logic to track the size of permanent media content instance files and the buffered media content instance files to provide indication of available free space (see at least FIG. 7, steps 106, 120, 140; 6:7-7:64).*

Pierre does not specifically disclose that the indication of available space is *a visual indication of an amount of available free space, such that the indication is independent of the buffer space.*

However, in an analogous art, Ellis'4430 incorporates the disclosure of a visual indication of an amount of available free space (see FIGs. 19-20 in the provisional application no. 60/290,709 filed May 14, 2001, from which Ellis'4430 claims priority). It is noted that the "Recording Space Available: 14 hrs" in FIGs. 19 and 20 does not appear to be dependent upon buffer space.

The combination Pierre-Ellis'4430 further discloses *wherein the free space indication is unaffected by writes to and deletions from the buffer space (Pierre; see at least 6:4-7-39).*

(Emphasis in original). Applicants respectfully disagree.

While *Pierre* teaches that "The CPU in the control processor 30 configures a DMA controller to ensure that the data is written to a buffer that is allocated in the storage device 18" (col. 6, lines 7-9), *Pierre* does not disclose or suggest "track[ing] the size of permanent media content instance files and the buffered media content instance files". Rather, *Pierre* teaches that "processor 30 first determines if there is sufficient contiguous space on the storage device 18 for the entire program, including the part currently stored in the buffer (step 106)" (col. 8, lines 7-10). Applicants respectfully submit that determining is not tracking. Nor is "determin[ing] if there is sufficient contiguous space on the storage device" the same as "track[ing] the size of permanent media content instance files and the buffered media content instance files". Thus, *Pierre* does not disclose or suggest "a processor configured with the logic to track the size of permanent media content instance files and the buffered media content instance files" as recited in claim 23.

Nor does *Pierre* teach or suggest "the processor is further configured with the logic to provide the user interface that provides a numerical indication of an amount of available free space, such that the indication is unaffected by writes to and deletions from the buffer space" as

alleged. While *Pierre* teaches that “a message is displayed to the viewer indicating that there is insufficient space to record the program currently being broadcast and the viewer is requested to choose between deleting an existing recording or not recording the current program (steps 140 and 144)” (col. 8, lines 60-65), *Pierre* does not disclose or suggest “a numerical indication of an amount of available free space”, much less “that the indication is unaffected by writes to and deletions from the buffer space” as recited in claim 23. Applicants respectfully submit that indicating that there is insufficient space is not the same as “provid[ing] a numerical indication of an amount of available free space”.

The addition of *Ellis* does not overcome these deficiencies. *Ellis* does not even mention tracking, much less disclose or suggest “track[ing] the size of permanent media content instance files and the buffered media content instance files”. In addition, even though the Program Recording Setup Screens of FIGS. 19 and 20 on page 64 of the provisional application no. 60/290,709 (to which *Ellis* claims priority) illustrate “Recording Space Available: 14 hrs” as being displayed, neither the provisional application nor *Ellis* teach or suggest that the Recording Space Available “indication is unaffected by writes to and deletions from the buffer space.” Thus, *Pierre* in view of *Ellis* does not disclose or suggest “the processor is further configured with the logic to provide the user interface that provides a numerical indication of an amount of available free space, such that the indication is unaffected by writes to and deletions from the buffer space” as recited in claim 23.

Furthermore, for at least the reasons discussed above with respect to claims 18 and 19, respectively, *Pierre* in view of *Ellis* fails to disclose, teach or suggest either “the processor is further configured with the logic to determine the available free space after subtracting buffer space capacity from total disk space” or “the processor is configured with the logic to reduce the available free space by the amount of the space used for the permanent media content instance files” as recited in claim 23.

For at least these reasons, Applicants respectfully submit that claim 23 is allowable over *Pierre* in view of *Ellis*. Therefore, Applicants respectfully request that the rejection of claim 23 be withdrawn.

Independent Claim 24

Claim 24 recites (emphasis added):

24. A method for managing the allocation and storage of media content instance files in a hard disk of a storage device coupled to a media client device in a subscriber television system, comprising the steps of:
buffering media content instances into buffer space as buffered media content instance files;
tracking the size of permanent media content instance files and buffered media content instance files; and
providing a visual indication of an amount of available free space, such that the indication is independent of the buffer space.

Applicants respectfully submit that *Pierre* in view of *Ellis* fails to disclose, teach, or suggest at least the above emphasized claim features.

The Office Action alleges on page 8 that:

Pierre discloses ... *tracking the size of permanent media content instance files and buffered media content instance files* (see at least FIG. 7, steps 106, 120, 140; 6:7-7:64); and *providing an indication of available free space* (see at least FIG. 7, steps 106, 120, 140; 6:7-7:64).

Pierre does not specifically disclose that the indication of available space is a visual indication of an amount of available free space, such that the indication is independent of the buffer space.

However, in an analogous art, *Ellis*'4430 incorporates the disclosure of a visual indication of an amount of available free space (see FIGs. 19-20 in the provisional application no. 60/290,709 filed May 14, 2001, from which *Ellis*'4430 claims priority). It is noted that the "Recording Space Available: 14 hrs" in FIGs. 19 and 20 does not appear to be dependent upon buffer space.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide *Pierre* with *Ellis*'4430's feature because the use of *Ellis*'4430 feature would help a user of *Pierre* determine whether the PVR has enough memory to store the desired program.

(Emphasis in original). Applicants respectfully disagree.

While *Pierre* teaches that “The CPU in the control processor 30 configures a DMA controller to ensure that the data is written to a buffer that is allocated in the storage device 18” (col. 6, lines 7-9), *Pierre* does not disclose or suggest “tracking the size of permanent media content instance files and buffered media content instance files”. Rather, *Pierre* teaches that “processor 30 first determines if there is sufficient contiguous space on the storage device 18 for the entire program, including the part currently stored in the buffer (step 106)” (col. 8, lines 7-10). Applicants respectfully submit that determining is not tracking. Nor is “determin[ing] if there is sufficient contiguous space on the storage device” the same as “tracking the size of permanent media content instance files and buffered media content instance files”. Thus, *Pierre* does not disclose or suggest “tracking the size of permanent media content instance files and buffered media content instance files” as recited in claim 24.

Nor does *Pierre* teach or suggest “providing [an] indication of an amount of available free space” as alleged. While *Pierre* teaches that “a message is displayed to the viewer indicating that there is insufficient space to record the program currently being broadcast and the viewer is requested to choose between deleting an existing recording or not recording the current program (steps 140 and 144)” (col. 8, lines 60-65), *Pierre* does not disclose or suggest “providing [an] indication of an amount of available free space” as recited in claim 24. Applicants respectfully submit that indicating that there is insufficient space is not the same as “providing [an] indication of an amount of available free space”. Moreover, as acknowledged on page 8 of the Office Action, “*Pierre* does not specifically disclose that the indication of available space is a visual indication of an amount of available free space, such that the indication is independent of the buffer space” (emphasis in original).

The addition of *Ellis* does not overcome these deficiencies. *Ellis* does not even mention tracking, much less disclose or suggest “track[ing] the size of permanent media content instance files and the buffered media content instance files”. In addition, even though the Program Recording Setup Screens of FIGS. 19 and 20 on page 64 of the provisional application no.

60/290,709 (to which *Ellis* claims priority) illustrate “Recording Space Available: 14 hrs” as being displayed, neither the provisional application nor *Ellis* teach or suggest that the Recording Space Available “indication is independent of the buffer space” as recited in claim 24.

If the Office Action is alleging that this explicit limitation is inherent in the “Recording Space Available”, Applicants respectfully submit that extrinsic evidence must be produced which establishes that the limitation would necessarily present in view of the *Pierre* and *Ellis* disclosures. “To establish inherency, the extrinsic evidence ‘must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.’” *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) (citations omitted). Consequently, because of the lack of extrinsic evidence required under *In re Robertson*, the statements in the Office Action are merely conclusory and not adequately supported, and the rejection of claim 24 is improper.

For at least these reasons, Applicants respectfully submit that claim 24 is allowable over *Pierre* in view of *Ellis*. Therefore, Applicants respectfully request that the rejection of claim 24 be withdrawn.

Because independent claim 24 is allowable over *Pierre* in view of *Ellis*, dependent claims 25-45 are allowable as a matter of law for at least the reason that the dependent claims 25-45 contain all elements of their respective base claim. See, e.g., *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988).

Dependent Claim 27

Notwithstanding, and in addition to, the arguments discussed above, Applicants respectfully request that the rejection of claim 27 be withdrawn for at least the reason that a *prima facie* case for obviousness is not established for claim 27 using the art of record.

The Office Action alleges on page 9 that "Since Claim 27 recites the same feature of Claim 4, the same rejection is thus applied." However, the Office Action acknowledges that claim 4 was previously canceled. As such, a rejection of claim 4 has not been presented.

Section 2143 of the MPEP states that:

To reject a claim based on this rationale, Office personnel must resolve the *Graham* factual inquiries. Then, Office personnel must articulate the following:

(1) a finding that the prior art included each element claimed, although not necessarily in a single prior art reference, with the only difference between the claimed invention and the prior art being the lack of actual combination of the elements in a single prior art reference;

(2) a finding that one of ordinary skill in the art could have combined the elements as claimed by known methods, and that in combination, each element merely performs the same function as it does separately;

(3) a finding that one of ordinary skill in the art would have recognized that the results of the combination were predictable; and

(4) whatever additional findings based on the *Graham* factual inquiries may be necessary, in view of the facts of the case under consideration, to explain a conclusion of obviousness.

Thus, for at least the reason that the Office Action fails to articulate a finding that the cited references include each element claimed, the rejection of claim 27 is legally insufficient and should be withdrawn.

Dependent Claim 41

Notwithstanding, and in addition to, the arguments discussed above, Applicants respectfully request that the rejection of claim 41 be withdrawn for at least the reason that *Pierre* in view of *Ellis* fails to disclose, teach, or suggest at least the features recited and emphasized below in amended claim 41. Applicants' claim 41 provides as follows (emphasis added):

41. The method of claim 24, further comprising the step of **determining the available free space after subtracting buffer space capacity from total disk space.**

The Office Action alleges on pages 11 and 6-7, respectively, that:

Since Claim 41 recites the same feature of Claim 18, the same rejection is thus applied.

The combination Pierre-Ellis'4430 does not specifically disclose *wherein the processor is further configured with the logic to determine the available free space after subtracting buffer space capacity from total disk space*. However, this logic is deemed inherent to Pierre because Pierre does disclose the step of determining whether there is sufficient contiguous space in storage device for the entire program (FIG. 7, step 106) and for remainder of the program (FIG. 7, step 120). Without subtracting buffer space capacity from total disk space, the above determining step would not be possible.

(Emphasis in original). Applicants respectfully disagree. Applicants respectfully submit that determining sufficient contiguous space does not require "subtracting buffer space capacity from total disk space" as recited in claim 41. "To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.'" *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) (citations omitted). Because no extrinsic evidence has been provided, the statements in the Office Action are not adequately supported, and the rejection of claim 41 is improper.

For at least the reasons described above, *Pierre* in view of *Ellis* fails to disclose, teach or suggest all of the features recited in claim 41. Therefore, Applicants respectfully request that the rejection of claim 41 be withdrawn.

Dependent Claim 42

Notwithstanding, and in addition to, the arguments discussed above, Applicants respectfully request that the rejection of claim 42 be withdrawn for at least the reason that *Pierre* in view of *Ellis* fails to disclose, teach, or suggest at least the features recited and emphasized below in amended claim 42. Applicants' claim 42 provides as follows (emphasis added):

42. The method of claim 24, further comprising the step of ***reducing the available free space by the amount of the space used for the permanent media content instance files***.

The Office Action alleges on pages 11 and 7, respectively, that:

Since Claim 42 recites the same feature of Claim 19, the same rejection is thus applied.

The combination Pierre-Ellis'4430 does not specifically disclose *wherein the processor is configured with the logic to reduce the available free space by the amount of the space used for the permanent media content instance files*. However, the reducing the available free space is deemed not only inherent but an unpatentable feature since this step is a direct result of the step of saving a permanent media content instance file. If the size of the new permanent media content instance file is larger than the existing one, then the result will be the reduction of the available free space.

(Emphasis in original). Applicants respectfully disagree. Applicants respectfully submit that reducing the available free space is not a direct result of the step of saving a permanent media content instance file as alleged. "To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.'" *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) (citations omitted). Because no extrinsic evidence has been provided, the statements in the Office Action are not adequately supported, and the rejection of claim 42 is improper.

Applicant acknowledges that the Examiner alleges that claim 19 includes "an unpatentable feature" (Office Action at page 7). However, no formal objection or rejection has been presented. Further, Applicants respectfully submit that the feature of claim 42 is patentable.

For at least the reasons described above, *Pierre* in view of *Ellis* fails to disclose, teach or suggest all of the features recited in claim 42. Therefore, Applicants respectfully request that the rejection of claim 42 be withdrawn.

Dependent Claim 45

Notwithstanding, and in addition to, the arguments discussed above, Applicants respectfully request that the rejection of claim 45 be withdrawn for at least the reason that *Pierre* in view of *Ellis* fails to disclose, teach, or suggest at least the features recited and emphasized below in claim 45. Applicants' claim 45 provides as follows (emphasis added):

45. The method of claim 24, wherein ***the indication of the free space available is unaffected by writes to and deletions from the buffer space.***

The Office Action at page 11 alleges:

Since Claim 45 recites the same feature of Claim 24, the same rejection is thus applied.

(Emphasis in original). Applicants respectfully disagree. Applicants respectfully submit that claim 24 does not include the feature recited in claim 45.

In addition, while *Pierre* teaches that "a message is displayed to the viewer indicating that there is insufficient space to record the program currently being broadcast and the viewer is requested to choose between deleting an existing recording or not recording the current program (steps 140 and 144)" (col. 8, lines 60-65), *Pierre* does not disclose or suggest an "indication of the free space available", much less that "the indication of the free space available is unaffected by writes to and deletions from the buffer space" as recited in claim 45.

The addition of *Ellis* does not overcome these deficiencies. Even though the Program Recording Setup Screens of FIGS. 19 and 20 on page 64 of the provisional application no. 60/290,709 (to which *Ellis* claims priority) illustrate "Recording Space Available: 14 hrs" as being displayed, neither the provisional application nor *Ellis* teach or suggest that the Recording Space Available "is unaffected by writes to and deletions from the buffer space." Thus, *Pierre* in view of *Ellis* does not disclose or suggest "the indication of the free space available is unaffected by writes to and deletions from the buffer space" as recited in claim 45.

For at least the reasons described above, *Pierre* in view of *Ellis* fails to disclose, teach or suggest all of the features recited in claim 45. Therefore, Applicants respectfully request that the rejection of claim 45 be withdrawn.

Independent Claim 46

Claim 46 recites (emphasis added):

46. A method for managing the allocation and storage of media content instance files in a hard disk of a storage device coupled to a media client device in a subscriber television system, comprising the steps of:

continuously buffering media content instances as buffered media content instance files;

tracking the size of permanent media content instance files and the buffered media content instance files;

providing a user interface, responsive to a user input, wherein ***the user interface provides a numerical indication of an amount of available free space for permanently recording media content instances***, wherein the permanently recorded media content instances are configured as the permanently recorded media content instance files, wherein the permanently recorded media content instance files can be deleted from the storage device, wherein the user input is implemented with a remote control device, wherein the permanently recorded media content is from the buffer space, wherein the permanently recorded media content is a scheduled recording initially written to non-buffer space, ***wherein the indication is unaffected by writes to and deletions from the buffer space***, wherein the buffer space, the available free space, and permanently recorded space are located on the hard disk, wherein the buffer space and permanently recorded space are allocated from the free space on the hard disk, wherein the buffer space and permanently recorded space have physical locations on the hard disk, wherein the buffer space and the available free space is measured in units of hard disk space;

buffering analog broadcast media content instances, received at a communications interface, as digitally compressed media content instances;

buffering an analog signal received at a connector from a consumer electronics device, as a digitally compressed media content instance;

buffering digital broadcast media content instances, received at a communications interface, as digitally compressed media content instances;

buffering digital media-on-demand media content instances, received at a communications interface from a remote server, as digitally compressed media content instances;

buffering digital media content instances, received at a digital communications port from a local network, as digitally compressed media content instances;
buffering digital media content instances, received at a digital communications port from a local device, as digitally compressed media content instances;
determining the available free space after subtracting buffer space capacity from total disk space;
reducing the available free space by the amount of the space used for the permanent media content instance files; and
increasing the available free space by the amount of the space recovered from a deleted permanent media content instance files, wherein the indication of the free space available is configured in time of space available for the permanent media content instance files.

Applicants respectfully submit that *Pierre* in view of *Ellis* fails to disclose, teach, or suggest at least the above emphasized claim features.

The Office Action alleges on page 12 that “Since Claim 46 is an independent claim that is a combination of Claims 24-45, the respective rejections are thus applied.” Applicants respectfully disagree. Specifically, claims 24-45 do not include the features of “continuously buffering media content instances as buffered media content instance files” and “the user interface provides a numerical indication of an amount of available free space for permanently recording media content instances” as recited in claim 46. Further, as discussed above with respect to claim 27, a rejection of claim 27 has not been presented. Section 2143 of the MPEP states that:

To reject a claim based on this rationale, Office personnel must resolve the *Graham* factual inquiries. Then, Office personnel must articulate the following:

- (1) a finding that the prior art included each element claimed, although not necessarily in a single prior art reference, with the only difference between the claimed invention and the prior art being the lack of actual combination of the elements in a single prior art reference;
- (2) a finding that one of ordinary skill in the art could have combined the elements as claimed by known methods, and that in combination, each element merely performs the same function as it does separately;
- (3) a finding that one of ordinary skill in the art would have recognized that the results of the combination were predictable; and
- (4) whatever additional findings based on the *Graham* factual inquiries may be necessary, in view of the facts of the case under consideration, to explain a conclusion of obviousness.

Thus, for at least the reason that the Office Action fails to articulate a finding that the cited references include each element claimed, the rejection of claim 46 is legally insufficient and should be withdrawn.

In addition, the Office Action alleges on pages 8 and 7, respectively, that:

Pierre discloses ... *tracking the size of permanent media content instance files and buffered media content instance files* (see at least FIG. 7, steps 106, 120, 140; 6:7-7:64); and *providing an indication of available free space* (see at least FIG. 7, steps 106, 120, 140; 6:7-7:64).

Pierre does not specifically disclose that the indication of available space is a *visual* indication of an amount of available free space, such that the indication is independent of the buffer space.

However, in an analogous art, Ellis'4430 incorporates the disclosure of a visual indication of an amount of available free space (see FIGs. 19-20 in the provisional application no. 60/290,709 filed May 14, 2001, from which Ellis'4430 claims priority). It is noted that the "Recording Space Available: 14 hrs" in FIGs. 19 and 20 does not appear to be dependent upon buffer space.

The combination Pierre-Ellis'4430 further discloses *wherein the free space indication is unaffected by writes to and deletions from the buffer space* (Pierre; see at least 6:4-7-39).

(Emphasis in original). Applicants respectfully disagree.

While *Pierre* teaches that "The CPU in the control processor 30 configures a DMA controller to ensure that the data is written to a buffer that is allocated in the storage device 18" (col. 6, lines 7-9), *Pierre* does not disclose or suggest "tracking the size of permanent media content instance files and the buffered media content instance files". Rather, *Pierre* teaches that "processor 30 first determines if there is sufficient contiguous space on the storage device 18 for the entire program, including the part currently stored in the buffer (step 106)" (col. 8, lines 7-10). Applicants respectfully submit that determining if there is sufficient contiguous space on the storage device is not tracking. Nor is "determin[ing] if there is sufficient contiguous space on the storage device" the same as "tracking the size of permanent media content instance files and the buffered media content instance files". Thus, *Pierre* does not disclose or suggest "tracking the size of permanent media content instance files and the buffered media content instance files" as recited in claim 46.

Nor does *Pierre* teach or suggest “the user interface provides a numerical indication of an amount of available free space”, much less that “the indication is unaffected by writes to and deletions from the buffer space” as alleged. While *Pierre* teaches that “a message is displayed to the viewer indicating that there is insufficient space to record the program currently being broadcast and the viewer is requested to choose between deleting an existing recording or not recording the current program (steps 140 and 144)” (col. 8, lines 60-65), *Pierre* does not disclose or suggest that “the user interface provides a numerical indication of an amount of available free space” where “the indication is unaffected by writes to and deletions from the buffer space” as recited in claim 46. Applicants respectfully submit that indicating that there is insufficient space is not the same as “provid[ing] a numerical indication of an amount of available free space”.

The addition of *Ellis* does not overcome these deficiencies. *Ellis* does not even mention tracking, much less disclose or suggest “tracking the size of permanent media content instance files and the buffered media content instance files”. In addition, even though the Program Recording Setup Screens of FIGS. 19 and 20 on page 64 of the provisional application no. 60/290,709 (to which *Ellis* claims priority) illustrate “Recording Space Available: 14 hrs” as being displayed, neither the provisional application nor *Ellis* teach or suggest that the Recording Space Available “is unaffected by writes to and deletions from the buffer space” as recited in claim 46.

Furthermore, for at least the reasons discussed above with respect to claims 41 and 42, respectively, *Pierre* in view of *Ellis* fails to disclose, teach or suggest either “determining the available free space after subtracting buffer space capacity from total disk space” or “reducing the available free space by the amount of the space used for the permanent media content instance files” as recited in claim 46.

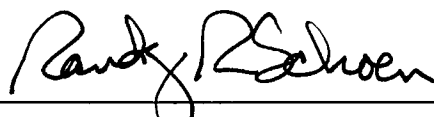
For at least these reasons, Applicants respectfully submit that claim 46 is allowable over *Pierre* in view of *Ellis*. Therefore, Applicants respectfully request that the rejection of claim 46 be withdrawn.

In summary, it is Applicants' position that a *prima facie* for obviousness has not been made against Applicants' claims. Therefore, it is respectfully submitted that each of these claims is patentable over the art of record and that the rejection of these claims should be withdrawn.

CONCLUSION

Applicants respectfully submit that Applicants' pending claims are in condition for allowance. Any other statements in the Office Action that are not explicitly addressed herein are not intended to be admitted. In addition, any and all findings of inherency are traversed as not having been shown to be necessarily present. Furthermore, any and all findings of well-known art and official notice, and similarly interpreted statements, should not be considered well known since the Office Action does not include specific factual findings predicated on sound technical and scientific reasoning to support such conclusions. Favorable reconsideration and allowance of the present application and all pending claims are hereby courteously requested. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney at (770) 933-9500.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Randy R. Schoen", written over a horizontal line.

Randy R. Schoen, Reg. No. 62,440

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